

Amendment to the Specification

Please amend the specification by replacing the following paragraphs:

Replace the paragraph beginning on page 6, line 21 with the following:

Figure 1 is the symbol used in the prior art to represent a quadrature hybrid in a block diagram of a circuit.

Replace the paragraph beginning on page 2, line 4 with the following:

In an effort to reduce the size and cost of the quadrature hybrid, efforts have been made to incorporate the elements into an integrated circuit. However, these efforts have met with only limited success. The inductors required can be incorporated into an integrated circuit; however, a additional capacitors are necessary for the quadrature hybrid to function properly. Adding discrete capacitors increases the space necessary to form the quadrature hybrid. The capacitors could be incorporated into the integrated circuit by thin film deposition techniques. However, this would substantially increase the necessary chip area for the hybrid circuit as capacitors require large areas of integrated circuit, typically more than an inductor.

Replace the paragraph beginning on page 8, line 10 with the following:

Figure 3 illustrates the structure of the quadrature hybrid in accordance with the present invention. A first spiral inductor 301 is formed in a first metal layer of an integrated circuit. In the preferred embodiment, a Monolithic Microwave Integrated Circuit (MMIC) is used; however, it is understood that the present invention could be manufactured using various types of integrated circuits. An insulating layer 317, shown as air or space in Figure 3,

is deposited on top of the first spiral inductor 301 and a second inductor 303 is deposited on top of insulating layer 317. In an actual, practical implementation of the present invention, the insulating layer would likely be a dielectric material. However, in order not to obscure the other circuit elements, insulating layer 317 is merely shown as space in Figure 3. The insulating layer serves two purposes. First, it provides the separation required between the two spiral inductors 301, 303 to allow for the proper level of parasitic coupling. Secondly, it acts as the dielectric necessary to allow the two spirals of the inductors to function as a capacitor, thus eliminating the need for separate capacitors.